

WHAT IS CLAIMED IS:

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ER.
- 1 1. A coupling member for converting a two-post equipment rack,
2 comprising:
3 a vertical support member having a first lateral end, a second lateral end, a first
4 longitudinal end, and a second longitudinal end;
5 an equipment attachment means coupled to the first lateral end, said equipment
6 attachment means defining a supporting point for a load, said equipment attachment
7 means being further adapted to secure to a load; and
8 means for securing the coupling member to the two-post equipment rack.
 - 1 2. The coupling member of claim 1, wherein said supporting point emulates a
2 vertical upright in a four-post equipment rack.
 - 1 3. The coupling member of claim 1, wherein said equipment attachment means is a
2 flange.
 - 1 4. The coupling member of claim 1, wherein said load comprises a sliding assembly.
 - 1 5. The coupling member of claim 1, wherein said load comprises a cable
2 management arm.
 - 1 6. The coupling member of claim 1, wherein said load comprises electronic
2 equipment.
 - 1 7. The coupling member of claim 1, further comprising:
2 a first torsion member coupled to said vertical support member at said first
3 longitudinal end.

1 8. The coupling member of claim 7, further comprising:
2 a second torsion member coupled to said vertical support member at said second
3 longitudinal end.

1 9. The coupling member of claim 1, wherein said means for securing the coupling
2 member to the two-post rack comprises a rack attachment flange coupled to the second
3 lateral end of the vertical support member.

1 10. The coupling member of claim 1, wherein the coupling member is adapted to be
2 mounted adjacent to other coupling members and to be supported by adjacent coupling
3 members.

1 11. The coupling member of claim 1, further comprising:
2 at least one coupling feature.

1 12. The coupling member of claim 11, wherein said at least one coupling feature is
2 attached to said first torsion member and on said second torsion member.

1 13. The coupling member of claim 11, wherein said at least one coupling feature is
2 located on said vertical support member.

1 14. The coupling member of claim 11, wherein said at least one coupling feature is
2 located on said equipment attachment means.

1 15. The coupling member of claim 11, wherein said coupling feature is adapted to
2 secure to other coupling members adjacent thereto.

1 16. The coupling member of claim 9, wherein said rack attachment flange is adapted
2 to provide a load transfer path from said vertical support member to the two-post
3 equipment rack.

1 17. The coupling member of claim 9, wherein said rack-attachment flange is in a pre-
2 loading configuration.

1 18. The coupling member of claim 17, wherein the pre-loading configuration is
2 provided by said rack attachment flange being secured to said vertical support member at
3 an acute angle.

1 19. The coupling member of claim 8, further including an outwardly extending
2 portion on said first and second torsion members, said outwardly extending portion
3 extending beyond said rack attachment flange.

1 20. The coupling member of claim 7, wherein said first torsion member further
2 includes a lower flange end on said outwardly extending portion adapted to provide a
3 pivot point for load support.

1 21. The coupling member of claim 8, wherein said second torsion member further
2 includes a lower flange end on said outwardly extending portion adapted to provide a
3 pivot point for load support.

1 22. The coupling member of claim 8, wherein said first and second torsion members
2 are have terminating portions formed at an obtuse angle relative to said vertical support
3 member.

1 23. The coupling member of claim 7, wherein said first torsion member is
2 substantially perpendicularly coupled to said vertical support member at the first
3 longitudinal end.

1 24. The coupling member of claim 8, wherein said second torsion member is
2 substantially perpendicularly coupled to said vertical support member at the second
3 longitudinal end.

1 25. The coupling member of claim 1, wherein the coupling member is formed in
2 increments of one modular unit ("U") in height.

1 26. The coupling member of claim 1, wherein said vertical support member is
2 provided with one or more openings thereon.

1 27. The coupling member of claim 26, wherein said openings are adapted to provide
2 ventilation.

1 28. The coupling member of claim 26, wherein said openings provide tie-points for
2 securement of cables thereto.

1 29. The coupling member of claim 7, wherein said first torsion member terminates at
2 a point prior to said equipment attachment means, forming a gap therein.

1 30. The coupling member of claim 8, wherein said second torsion member terminates
2 at a point prior to said equipment attachment means, forming a gap therein.

403

1 31. A modified two-post rack, comprising:

2 a first vertical post having a first side and a second side;

3 a second vertical post having a first side and a second side, said second vertical
4 post being coupled to said first post via a base;

5 a first coupling member coupled to and independently extending substantially
6 horizontally outward from said first post, said first coupling member replicating at least
7 one post in a four-post equipment rack; and

8 a second coupling member coupled to and independently extending substantially
9 horizontally outward from said second post, said second coupling member replicating at
10 least one post in the four-post equipment rack.

1 32. The modified two-post rack of claim 31, further comprising:

2 a third coupling member coupled to and independently extending substantially
3 horizontally outward from said first post; and

4 a fourth coupling member coupled to and independently extending substantially
5 horizontally outward from said second post, said first, second, third and fourth coupling
6 members each substantially replicating a vertical upright in a four-post equipment rack.

1 33. The modified two-post equipment rack of claim 32, wherein said first coupling
2 member comprises:

3 a vertical support member having a first lateral end, a second lateral end, a first
4 longitudinal end, and a second longitudinal end;

5 an equipment attachment flange coupled to the first lateral end, said equipment
6 attachment flange being adapted to emulate a vertical upright in a four-post equipment
7 rack, said equipment attachment flange being further adapted to secure to a load; and

8 a rack attachment flange coupled to the second lateral end of said vertical support
9 member.

1 34. The modified two-post rack of claim 33, wherein said first coupling member further
2 comprises:

3 a first torsion member coupled to said vertical support member at the first
4 longitudinal end; and

5 a second torsion member coupled to said vertical support member at the second
6 longitudinal end.

1 35. The modified two-post equipment rack of claim 34, wherein said first coupling
2 member further comprises at least one coupling feature on said first torsion member and
3 on said second torsion member.

1 36. The modified two-post equipment rack of claim 34, wherein said first coupling
2 member is adapted to be supported by adjacent vertical coupling members.

1 37. The modified two-post equipment rack of claim 35, wherein the coupling feature is
2 adapted to secure to coupling members adjacent thereto.

1 38. The modified two-post equipment rack of claim 33, further comprising said rack
2 attachment flange being adapted to provide a load transfer path from said vertical support
3 member to the two-post equipment rack.

1 39. The modified two-post equipment rack of claim 33, further comprising said rack-
2 attachment flange being in a pre-loading configuration.

1 40. The modified two-post equipment rack of claim 39, wherein said pre-loading
2 configuration comprises said rack attachment flange being secured to said vertical
3 support member at an acute angle.

1 41. The modified two-post equipment rack of claim 34, further comprising:
2 said first torsion member and said second torsion member extending beyond said
3 rack attachment flange.

1 42. The modified two-post equipment rack of claim 34, further comprising said first
2 torsion member having a lower flange end adapted to provide a pivot point for load
3 support.

1 43. The modified two-post equipment rack of claim 34, further comprising said
2 second torsion member having a lower flange end adapted to provide a pivot point for
3 load support.

1 44. The modified two-post equipment rack of claim 34, further comprising said first
2 torsion member substantially perpendicularly coupled to said vertical support member at
3 said first longitudinal end.

1 45. The modified two-post equipment rack of claim 34, further comprising said
2 second torsion member substantially perpendicularly coupled to said vertical support
3 member at said second longitudinal end.

1 46. A method for converting a two-post equipment rack to support four-post loads,
2 comprising:
3 coupling independent four-post replicating mounting points on the two-post
4 equipment rack, said four-post replicating mounting points being adapted to support the
5 four-post loads.

1 47. The method of claim 46, wherein said mounting points comprise two or more
2 independent coupling members wherein each coupling member attaches to only one
3 respective post.

1 48. The method of claim 46, wherein said four-post replicating mounting points
2 comprise four coupling members.

1 49. The method of claim 46, wherein one of said four-post replicating mounting
2 points comprise:
3 a vertical support member having a first lateral end, a second lateral end, a first
4 longitudinal end, and a second longitudinal end;
5 an equipment attachment flange coupled to the first lateral end, said equipment
6 attachment flange being adapted to emulate a vertical upright in a four-post equipment
7 rack, said equipment attachment flange being further adapted to secure to a load; and
8 a rack attachment flange coupled to the second lateral end of said vertical support
9 member.

1 50. The method of claim 49, wherein one of said four-post replicating mounting
2 points further comprise:

3 a first torsion member coupled to said vertical support member at the first
4 longitudinal end; and

5 a second torsion member coupled to said vertical support member at the second
6 longitudinal end.

1 51. A method for adapting a two-post equipment rack to support four-post loads,
2 comprising:

3 coupling a first coupling member to a first post; and

4 coupling a second coupling member to a second post, wherein said first coupling
5 member and said second coupling member emulate two of the four posts in a four-post
6 rack; and

7 wherein the two-post equipment rack provides the remaining two posts in the
8 four-post rack

1 52 The method of claim 51, further comprising:

2 coupling a third coupling member to a first post substantially planar to and

3 substantially parallel to said first coupling member;

4 coupling a fourth coupling member to said second post substantially planar to and
5 substantially parallel to said third coupling member;

6 wherein each of the coupling members emulate one respective post in a four-post
7 rack.

1 53. The method of claim 52, where said first coupling member comprises:
 2 a vertical support member having a first lateral end, a second lateral end, a first
 3 longitudinal end, and a second longitudinal end;
 4 an equipment attachment flange coupled to the first lateral end, said equipment
 5 attachment flange being adapted to emulate a vertical upright in a four-post equipment
 6 rack, said equipment attachment flange being further adapted to secure to a load; and
 7 a rack attachment flange coupled to the second lateral end of said vertical support
 8 member.

1 54. The method of claim 53, wherein said first coupling member further comprises:
 2 a first torsion member coupled to said vertical support member at the first
 3 longitudinal end; and
 4 a second torsion member coupled to said vertical support member at the second
 5 longitudinal end.

1 55. The method of claim 51, further comprising securing a load to
 2 the vertical support member of said first and said second coupling member.

1 56. The method of claim 52, further comprising securing a load to the vertical support
 2 member of said first, said second, said third and said fourth coupling member.

1 57. The method of claim 53, wherein said load comprises a slide assembly.

1 58. The method of claim 52, further comprising:
 2 securing a fifth coupling member to said first post; and
 3 securing a sixth coupling member to said second post.

1 59. The method of claim 58, further comprising:

2 coupling said first coupling member to said fifth coupling member.

1 60. A method of converting a portion of a rack to emulate a commercially-available

2 four-post rack, comprising:

3 providing a plurality of coupling members thereon;

4 adjusting the forward depth of the two-post rack;

5 adjusting a mounting feature on at least one of the plurality of coupling members.

1 61 The method of claim 60, wherein the converted rack is a two-post rack.

1 62 The method of claim 60, wherein said providing a plurality includes placement of

2 said plurality of coupling members depending on the load configuration.

1 63. The method of claim 60, further comprising:

2 adjusting the aft depth of the two-post rack.

1 64. The method of claim 60, further comprising:

2 attaching a load to at least one of the plurality of coupling members.

1 65. The method of claim 64, further comprising:

2 substantially centering the load about the two-post rack.

1 66. The method of claim 60, further comprising:

2 forming an opening in the two-post rack in accordance with a standard defined by

3 EIA-310.

1 67. An equipment support device for two-post rack systems, comprising:
2 rack attachment means;
3 an equipment attachment means coupled to said rack attachment means; and
4 a coupling feature for connecting the support device to adjacent equipment
5 support devices.

1 68. A method for racking a device having a four-post rack-mounting configuration to
2 a two-post rack system, said method comprising:
3 installing a two-post to four-post adapter on the two-post rack system, the two-
4 post to four-post adapter operable to support a device having a four-post rack-mounting
5 configuration; and
6 mounting the device to the two-post to four-post adapter.

1 69. The method according to claim 68, wherein said installing includes coupling the
2 two-post to four-post adapter to the two-post rack system.

1 70. The method according to claim 69, wherein the coupling includes bolting the two-
2 post to four-post adapter to the two-post rack system.

1 71. The method according to claim 68, wherein the two-post to four-post adapter
2 includes at least two coupling members.

1 72. A system for racking a device having a four-post rack-mounting configuration to
2 a two-post rack system, said system comprising:

3 means for installing a two-post to four-post adapter on the two-post rack system,
4 the two-post to four-post adapter operable to support a device having a four-post rack-
5 mounting configuration; and

6 means for mounting the device to the two-post to four-post adapter.

1 73. A method for enabling rack mounting of a device having a four-post rack-
2 mounting configuration to a two-post rack system, said method comprising:

3 providing a two-post to four-post adapter on the two-post rack system, the two-
4 post to four-post adapter operable to support the device having a four-post rack-mounting
5 configuration.

1 74. The method according to claim 73, wherein the two-post to four-post adapter
2 includes at least two coupling members.

1 75. The method according to claim 73, further comprising:

2 measuring hardware providing for the configuration of the device having the four-
3 post rack-mounting configuration; and

4 specifying dimensions for the two-post to four-post adapter based on said
5 measuring.

1 76. The method according to claim 73, wherein said providing includes at least one of
2 the following:

3 selling, distributing, including, offering for sale, advertising, and marketing.

1 77. The method according to claim 73, wherein the two-post to four-post adapter is
2 provided with the device.

1 78. The method according to claim 73, wherein the two-post to four-post adapter is
2 provided with the two-post rack system.

1 79. The method according to claim 77, wherein the device is a computer server.

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